## ABSTRACT OF THE DISCLOSURE

### DEVICE FOR FIXING A RIGID AND BRITTLE FIBER COMPRISING A MECHANICALLY DEFORMABLE CLADDING THAT MAY BE SUBJECTED TO AT LEAST ONE MECHANICAL STRESS

The purpose of this invention is a device (1) for fixing a fiber (2) comprising a rigid and brittle core (24) surrounded by a mechanically deformable cladding (22), and that can be subjected to at least one mechanical stress. According to the invention, the clamping device comprises concentric jaws (4), each jaw comprising an inner surface (14) composed of a central portion (16) and two end portions (18, 20), the end portions being made so as to prolong the central portion by gradually moving away from the main axis of the device, each comprising at least one part in contact with the mechanically deformable cladding when the jaw occupies a clamped position.

Use of this device for fixing an optical fiber and any optical fiber sensor, particularly a Bragg grating optical fiber sensor.

Figure 3.